WHAT IS CLAIMED IS:

1   1.   A method for converting text to concatenated voice by

2 utilizing a digital voice library and a set of playback rules, the digital voice library

3 including a plurality of voice recordings with each recording having a starting sonic

4 feature and an ending sonic feature, the method including receiving text data,

5 converting the text data into a sequence of voice recordings in accordance with the

6 digital voice library and the set of playback rules, the method further comprising:

7   generating voice data based on the sequence of voice recordings by

8 concatenating adjacent recordings in the sequence of voice recordings, wherein

9 concatenating a first recording and a second recording adjacent to the first recording

10 includes manipulating the ending sonic feature of the first recording to determine a

11 first recording switch point, manipulating the starting sonic feature of the second

12 recording to determine a second recording switch point, and synchronizing the first

13 recording switch point and the second recording switch point.

1   2.   The method of claim 1 wherein the starting and ending sonic

2 features of the voice recordings are classified into a number of different categories.

1   3.   The method of claim 2 wherein one of the categories is a

2 noise.

1   4.   The method of claim 2 wherein one of the categories is an

2 impulse.

1   5.   The method of claim 2 wherein one of the categories is a tone.

1   6.   The method of claim 2 wherein the first recording switch

2 point is selected based on the classification of the ending sonic feature of the first

3 recording.

1   7.   The method of claim 6 wherein the second recording switch
2   point is selected based on the classification of the starting sonic feature of the
3   second recording.

1   8.   The method of claim 1 wherein the starting and ending sonic
2   features of the voice recordings are classified into a number of different categories
3   including a noise, an impulse, and a tone.

1   9.   The method of claim 8 wherein the ending sonic feature of the
2   first recording is an impulse and the starting sonic feature of the second recording
3   is an impulse, and wherein synchronizing the first recording switch point and the
4   second recording switch point further comprises:
5   synchronizing the impulses, and switching to and playing back the
6   impulse and remainder of the second recording.

1   10.   The method of claim 8 wherein the ending sonic feature of the
2   first recording is a tone and the starting sonic feature of the second recording is a
3   tone, and wherein synchronizing the first recording switch point and the second
4   recording switch point further comprises:
5   synchronizing the tones, and switching on peaks of the tones.

1   11.   The method of claim 10 wherein the recordings overlap, and
2   wherein synchronizing during the overlap includes multiplexing.

1   12.   The method of claim 8 wherein the ending sonic feature of the
2   first recording is a noise and the starting sonic feature of the second recording is a
3   noise, and wherein synchronizing the first recording switch point and the second
4   recording switch point further comprises:
5   switching anywhere within the noise such that not more than fifty
6   percent of duration of either noises is cut.

1   13.   The method of claim 8 wherein the ending sonic feature of the
2   first recording is a tone and the starting sonic feature of the second recording is an

3   impulse, and wherein synchronizing the first recording switch point and the second

4   recording switch point further comprises:

5   switching on a peak of the tone and on an impulse of the impulse.

1   14.   The method of claim 13 wherein the tone and the impulse

2   overlap, and wherein synchronizing during the overlap includes multiplexing.

1   15.   The method of claim 8 wherein the ending sonic feature of the

2   first recording is a noise and the starting sonic feature of the second recording is an

3   impulse, and wherein synchronizing the first recording switch point and the second

4   recording switch point further comprises:

5   switching anywhere within the noise such that not more than fifty

6   percent of the noise is cut, and switching on an impulse of the impulse.

1   16.   The method of claim 8 wherein the ending sonic feature of the

2   first recording is a noise and the starting sonic feature of the second recording is an

3   tone, and wherein synchronizing the first recording switch point and the second

4   recording switch point further comprises:

5   switching anywhere within the noise such that not more than fifty

6   percent of the noise is cut, and switching on a peak of the tone.

1   17.   The method of claim 8 wherein the ending sonic feature of the

2   first recording is an impulse and the starting sonic feature of the second recording

3   is a tone, and wherein synchronizing the first recording switch point and the second

4   recording switch point further comprises:

5   switching at a peak of the tone and an end of the impulse.

1   18.   The method of claim 17 wherein the impulse and the tone

2   overlap, and wherein synchronizing during the overlap includes multiplexing.

1   19.   The method of claim 8 wherein the ending sonic feature of the

2   first recording is an impulse and the starting sonic feature of the second recording

3   is a noise, and wherein synchronizing the first recording switch point and the second

4   recording switch point further comprises:

5   switching anywhere within the noise such that not more than fifty

6   percent of duration of the noise is cut, and switching an end of the impulse.

1   20.   The method of claim 8 wherein the ending sonic feature of the

2   first recording is an tone and the starting sonic feature of the second recording is a

3   noise, and wherein synchronizing the first recording switch point and the second

4   recording switch point further comprises:

5   switching anywhere within the noise such that not more than fifty

6   percent of duration of the noise is cut, and switching at a peak of the tone.